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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,081	11/27/2001	David J. Steklenski	83760D-W	9563

7590 06/04/2003

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EXAMINER	
PAIK, STEVE S	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/995,081	STEKLENSKI ET AL.	
	Examiner	Art Unit	
	Steven S. Paik	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 November 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

3. Claims 1-16 are objected to because of the following informalities: The independent claim recites the limitation of "a first region capable of...." in line 5. The phrase, "capable of" fails to claim the invention clearly and definitely. The dependent claims 2-16 are also objected because the claims are dependent claims of Claim 1. It is respectfully suggested to replace the phrase with a word -- for -- to define the invention in a more precise manner. Appropriate correction is required.

4. Claim14 is objected to because of the following informalities: a space appears to be needed between the word "claim" and the number "12" in line 1.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Donahue et al. (US 5,637,876).

Re claims 1 and 11, Donahue et al. disclose a method for measuring a level of exposure to radiation using a measuring device (radiation dosimeter) that bears an integral identification mark (barcodes 16a or 16b), comprising the steps of:

providing a support (substrate 12 in Fig. 1);

disposing on said support a first region capable of measuring an absorbed dose of ionizing radiation (14 and col. 6, ll. 23-29);

disposing on said support a second region (16a or 16b) that bears an integral identification mark (barcodes; col. 6, ll. 43-47);

exposing at least the first region to a dose of ionizing radiation; and

reading the signal from the first region (col. 6, ll. 50-63).

Re claims 2 and 3, Donahue et al. disclose the method as recited in rejected claim 1 stated above, further comprising a step of reveling the identification mark (16a or 16b) in the second region (far left and far right side of the substrate 12 in Fig. 1). Donahue et al. further teach a step of decoding the mathematical parameters encoded in bar codes 16a and 16b.

~~Re claims 4-6, and 10, Donahue et al. disclose the method as recited in rejected claim 1~~ stated above, wherein the identification mark (16a or 16b) is a bar code, a series of alpha-numeric characters or a combination thereof (col. 6, ll. 40-43). The identification mark (16a or 16b) is on a substrate (12) and has a shape of a label (see Fig. 1 and col. 2, ll. 1-4).

Re claim 7, Donahue et al. disclose the method as recited in rejected claim 5 stated above, where the substrate for the identification mark (16a or 16b) is an intermediate layer and a dark-colored layer coated directly onto the support (substrate 12). The barcodes comprises a single series of bars (dark-colored compared to a single series of spaces) of varying widths (encoding a different type of information) which are directly coated onto the support (substrate 12).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 8, 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donahue et al. (US 5,637,876) in view of Morita et al. (US 4,668,714).

Re claims 8, 12-14, Donahue et al. disclose a method for measuring an absorbed dose of ionizing radiation using a dosimeter including a first region (radiation sensitive patch or layer 14), a second region (identification mark; barcodes 16a or 16b), and a step of decoding process.

Although Donahue et al. disclose, teach, or fairly suggest a method of measuring an absorbed dose of ionizing radiation, the reference does not specifically discloses what is contained in the radiation material.

Morita et al. disclose an alanine dosimeter that enables accurate and simple measurement of an absorbed dose of an ionizing radiation. Morita et al. teach that when the crystal of alanine, an amino acid, is irradiated with a radiation, it produces stable and characteristic radicals in precise proportion to the dose absorbed by the crystal. The radicals formed by irradiation with radiation remain stable within the crystal of alanine and their concentration is subjected to a very small degree of time-dependent change. Furthermore, radicals formed in the crystal of alanine are fairly stable against heat. The rubber and alanine crystal are mixed between a lower and upper limit to produce a uniform composition of rubber and alanine. Therefore, a dosimetry with high precision and reproductivity can be performed (col. 1, ll. 57+ and col. 2, ll. 1-9). Along with the disclosed advantages of alanine crystal, Morita et al. suggest using a binder agent (synthetic or natural rubber) that produces a very small amount of radicals upon exposure to radiation and or that has its heat resistance improved by cross-linking treatment (col. 3, ll. 27-33).

In view of Morita et al. teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further employ a molded dosimeter containing a rubber as a binder agent and crystalline alanine in addition to the radiation dosimetry method of Donahue et al. since more flexible (rubber) and stable for long periods of time dosimeter can be produced on the support for the purposes of measuring the amount of absorbed radiation precisely and efficiently (col. 7, ll. 6-25 and col. 7, 1-25). Furthermore, such

modification of employing a molded dosimeter by using a binder agent such as a synthetic or natural rubber to the teachings of Donahue et al. would have been an obvious matter of design variation, well within the ordinary skill in the art, and therefore an obvious expedient.

Re claim 15, Donahue et al. disclose a method for measuring an absorbed dose of ionizing radiation using a dosimeter including a first region (radiation sensitive patch or layer 14), a second region (identification mark; barcodes 16a or 16b), and a step of decoding process.

Although Donahue et al. disclose, teach, or fairly suggest a method of measuring an absorbed dose of ionizing radiation, the reference does not specifically discloses the size of crystalline alanine comprising particle less than 100 microns in size.

Morita et al. disclose an alanine dosimeter that enables accurate and simple measurement of an absorbed dose of an ionizing radiation. The radicals formed by irradiation with radiation remain stable within the crystal of alanine and their concentration is subjected to a very small degree of time-dependent change. The rubber and alanine crystal are mixed between a lower and upper limit to produce a uniform composition of rubber and alanine. Morita et al. further disclose that the power is so fine without disclosing a specific size of the particle.

Hence, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the thickness of oxide layer, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The fine crystal of alanine mixed with a binder agent such as rubber provides uniformly dense dosimetry.

~~Re claim 16, Donahue et al. in view of Morita et al. disclose the method as recited in~~ rejected claim 11 stated above, where the coated first region (dosimeter) is between 100 and 200 microns (2 mm) thick (col. 4, ll. 35-40).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Donahue et al. (US 5,637,876) in view of Van der Werf et al. (US 5,910,847).

Donahue et al. disclose a method for measuring an absorbed dose of ionizing radiation using a dosimeter including a first region (radiation sensitive patch or layer 14), a second region (identification mark; barcodes 16a or 16b), and a step of decoding process. Donahue et al. further disclose a light source (24) for the purpose of reading the identification mark.

However, Donahue et al. do not explicitly disclose, the light source is a laser.

Van der Werf et al. disclose a method of determining the radiation dose using an optical alignment device. The reference specifically discloses using a laser, among other things, as one of many variable light sources to illuminate a mark homogeneously (col. 7, ll. 50-57 and Fig. 1A).

Therefore, it would have been obvious at the time the invention was made to a person having of ordinary skill in the art to have selected a laser as a light source in a dosimeter as taught by Van der Werf et al. as one of many available light sources of Donahue et al. for the purpose of providing homogeneous illumination to a targeted mark.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Seiwartz et al. (US 5,777,341) discloses a method for manufacturing a calibrated radiation dosimeter. The method includes radiation sensitive patches of radiation dosimeter that are individually calibrated for sensitivity to facilitate eventual use in quantitatively measuring radiation doses.

Nishi (US 6,563,565) teaches an apparatus for monitoring changes in transmissivity of a projection optical system to provide a high degree of control over the exposure illumination to produce precision printing of a circuit pattern on a substrate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 703-308-6190. The examiner can normally be reached on Mon - Fri (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6893 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

Steven S. Paik
Examiner
Art Unit 2876

ssp
May 20, 2003